REMARKS

In response to paragraphs 5 and 7 of the Office Action, Applicant has repeatedly stated that SEQ ID No.: 19 corresponds directly to SEQ ID NO.: 1 as identified in Applicant's application as originally filed and has filed a Declaration, executed by Applicant, and which is now of record, to support this. Applicant has also attested in his Declaration to the fact that the specification and claims as originally filed are consistent with the Sequence Listing filed on September 8, 2009 and that position 17 of SEQ ID NO: 19 is (^{17}Gin), and not "Glu". Accordingly, the Amendment filed by Applicant on March 27, 2007 showing "Glu" at position 17 constitutes nothing more than a typographical error and should be ignored by the Examiner.

Since Applicant has already attested to the fact that no new matter has been added and that the sequence listing for SEQ ID NO: 19 is not new, Applicant cannot understand why the Examiner continues to refer to the typographical error in the Amendment filed on March 27, 2007 as evidence of "new matter" and to object to the specification under 35 USC 132. Applicant has repeatedly stated that the original disclosure is correct, and that the sequence listing filed with the Amendment on September 8, 2009 conforms to the original disclosure and is also correct.

Accordingly, Applicant respectfully requests the Examiner to accept the statement of error regarding the Amendment of March 27, 2007, since Applicant's

Declaration, the Sequence Listing filed on September 8, 2009, and the original Specification are otherwise all consistent with one another. Hopefully, this clarifies the objection raised by the Examiner in paragraphs 5 and 7 in the Office Action. Another Declaration for further clarification can be provided by Applicant, if required, to overcome the objection under 35 USC 132, which is being based upon a comparison of the Specification as originally filed to an Amendment that Applicant admits lists the 17th amino acid in error.

Accordingly, all of the Examiner's objections and the rejection of claim 22 under 35 USC 112 should be withdrawn, since the only basis for the objection and rejection is an inadvertent error in an Amendment, which Applicant retracts. The 17th amino acid is "Gln" and not "Glu".

In light of the original filing of the application and Applicant's insistence that it is correct, there is no basis for the Examiner to keep referring to the Amendment of March 27, 2007, which lists the 17th amino acid in error.

For all of the above reasons, the rejections of claim 22, under 35 USC 112, first paragraph, should be withdrawn. Applicant is not departing from the specification as originally filed, which identifies only SEQ ID NO: 1. Moreover, Applicant has submitted a Declaration attesting to the listing of SEQ ID NO: 19 as corresponding, on a one-to-one basis, to the recited nucleic acid sequence listing of SEQ ID NO: 1. They are identical in sequence listing as specified by Applicant in his

Declaration. Accordingly, there is no basis for the Examiner to insist that this constitutes "new matter".

Claim 23 has been cancelled leaving claim 22 in the application as the only product claim.

Claim 27 has been added as a method claim corresponding to the method of use of the diagnostic agent in claim 22.

The rejection of claim 22 under 35 USC 102(b) as being anticipated by Kelly as evidence by Guignard et al., is respectfully traversed.

The Examiner alleges that an antibody "cross-reacts", i.e., binds to no more than one protein sequence based on shared epitope, but alleges that this does not mean that the antibody does not "specifically react" with both proteins. On this alleged basis, which is unsupported in the literature, the Examiner now further alleges that, as evidenced from Guignard (1996), the similarities among the S100 family proteins make the generation of specific anti-serum difficult due to structural conservation and might explain cross-reactivity of Mac 387 with Mrp-14. The Examiner does not identify the similarities among the S100 family proteins, which are known to support this allegation, or to support the alleged cross-reactivity. Moreover, this is not consistent with a rejection under 35 USC 102, since it is based on assumptions made by the Examiner and not on the direct or inherent teaching in Kelly. There is no teaching in Kelly et al of a diagnostic agent for inflammatory

diseases which comprises a monoclonal antibody specific to a calcium-binding protein comprising an amino acid sequence shown in SEQ ID NO: 19 or encoded by a nucleic acid sequence shown in SEQ ID NO: 1 as is recited in claim 22. Accordingly, claim 22 is clearly novel and the rejection under 35 USC 102 based on anticipation should be withdrawn.

The rejection of claim 22 under 35 USC 103(a) as being unpatentable over Dell'Angelica (JBC, 269(46): 28929-28936, 1994) as evidenced by the specification disclosure on page 40, lines 6-9 of Bost et al. (Immunol. Invest. 1988; 17:577-586), in view of Alisa Campbell (General properties and applications of monoclonal antibodies, Elsevier Science Publishers, 1984, section 1.1), is respectfully traversed.

The Examiner's allegations concerning the Second Declaration of David J. Weber, Ph.D., filed by Applicant in patent interference No. 105,501 dated 10/16/06, clearly establishes novelty and non-obviousness of the protein SEQ ID NO: 19 in comparison to other all known proteins in the S100 family of proteins at the time of filing and, therefore, applies equally as well to the proteins of the S100 family taught in Dell'Angelica. A copy of the Weber Declaration was submitted by Applicant with the Amendment filed on September 8, 2009 and is now of record.

Claim 22 is directed to a diagnostic agent limited to an antibody specific to a calcium-binding protein comprising an amino acid sequence shown in SEQ ID NO: 19. The detailed declaration of Dr. Weber clearly explains why a protein in the S100

family, having a 79% sequence identity or even an 81% sequence identity to that of SEQ ID NO: 19, is not a basis for alleging obviousness between different proteins in the S100 family. Accordingly, there is no basis for the allegation that the selection of the antigen in the use of a diagnostic agent claimed in claim 22 is obvious from the teaching in Dell'Angelica of pig calgranulin C or fragments thereof. The comparison by the Examiner of pig calgranulin C in Dell'Angelica based on a 79% sequence identity to SEQ ID NO: 19 is dependent upon conjecture and a showing of similarity in the N-terminus of the peptide of SEQ ID NO: 1. All of the proteins in the S-100 family have similarities and the sequence listing of each is identical up to about 85% but yet differ to a substantial extent. The similarity does not justify a conclusion of obviousness between members of the S-100 protein family.

Moreover, since Applicant has cancelled claim 23 and is relying on claim 22 directed only to a diagnostic agent for inflammatory diseases specific to a calcium-binding protein comprising an amino acid sequence shown in SEQ ID NO: 19, the novelty and non-obviousness of SEQ ID NO: 19 over the proteins in Dell'Angelica renders the diagnostic agent patentable. This should also be true to the diagnostic use as now claimed in claim 27.

Reconsideration and allowance of claims 22 and 27 is respectfully solicited.

Respectfully submitted,

Dated: April 19, 2010

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CERTIFICATE OF TRANSMISSION

I hereby certify that this Amendment w/RCE is being mailed via EFS-Web addressed to Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 on April 19, 2010.

Audrey de Souza